



How do Rapid Air Monitors work?

Benefits of Rapid Air Monitoring:

- Fast uptake rate
- Shorter monitoring periods than diffusion tubes
- No power supply required
- Simultaneous monitoring of volatiles and semi-volatiles

NEW monitoring devices for inorganic or organic compounds. Units are 3.5 cm tall and 4.5 cm wide.

RAMs work by a process called molecular diffusion. During molecular diffusion, compounds will move from an area of high concentration to an area of low concentration.

The compounds in the air are at a higher concentration than those on the surface of the RAM, so the compounds diffuse into the RAM and collect on the absorbent disc.

Because the compounds are absorbed, the low concentration at the surface of the disc is maintained, and therefore diffusion continues. The rate that the compounds move into the RAM is called the uptake rate. This is a known rate and is used in the calculations during analysis.

Using Rapid Air Monitors

Rapid Air Monitors are designed for short-term monitoring for 1 hour to 7 days. Once the sampling period is over, the monitors are sealed and returned to the laboratory for analysis.

The lab determines the concentration of compounds on the disc. This is then used in a calculation with the uptake rate to calculate the average concentration of compounds that were present in the air over the monitoring period.

The results are reported in parts per billion (ppb) or micrograms per metre cubed ($\mu\text{g m}^{-3}$) to allow comparison with guideline levels. Reports are emailed to the customer within 10 working days of receipt of the samples.

